



## Presentation Overview

- Major Revisions
- Scope of the Measure
- Discussion Items
- Next Steps
- Questions

## ARB Proposed Control Measure

### Major Revisions

- Landfill size threshold
- Landfill gas heat input capacity threshold
- Exemption of CERCLA and hazardous waste landfills
- Surface monitoring frequencies

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## ARB Proposed Control Measure

### Major Revisions (Cont.)

- Cover Integrity Monitoring
- Component leak testing frequency
- Administrative requirements
- Temporary use of open flares

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## ARB Proposed Control Measure

### Scope of the Measure

- Affects all MSW landfills
- $\geq 450,000$  tons of WIP
  - Install a gas collection and control system, unless exemption requirements are met
  - Comply with statewide standards
- $< 450,000$  tons of WIP
  - Must comply with specified reporting requirements

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## ARB Proposed Control Measure

### Scope of the Measure

- Limited Exemptions allowed if owner or operator:
  - Complies with surface methane emission limit (200 ppm); or
  - Has a landfill gas heat input capacity of  $< 3.0 \text{ MMBtu/hr}$ ; and
  - Meets specified reporting requirements

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## ARB Proposed Control Measure

### Scope of the Measure (cont.)

- Prepare a Design Plan subject to approval (12 months)
- Install and operate GCCS 18 months after approval of Design Plan
- Flexible control options including enclosed flares and landfill gas-to-energy facilities
- Open flares allowed only under temporary conditions

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## ARB Proposed Control Measure

### Scope of the Measure (Cont.)

- Performance Based Standards
  - 200 ppm instantaneous surface methane emission limit
  - 200 ppm component leak limit
  - Higher destruction efficiencies for gas control devices

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## ARB Proposed Control Measure

### Scope of the Measure (Cont.)

#### ■ Surface Monitoring

- Quarterly surface emission measurements for active landfills
- Quarterly surface emission measurements reduced to annual (if in compliance) for inactive or closed landfills, or areas of active landfills that are closed or inactive
- 25 foot increased to 100 foot (if in compliance) walking pattern spacing
- Monthly cover integrity monitoring

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## Discussion Items

### Current Enhanced Monitoring Requirements

- 200 ppmv surface methane limit
- Quarterly surface emission measurements for active landfills
- Quarterly surface emission measurements reduced to annual (if in compliance) for inactive or closed landfills, or areas of active landfills that are closed or inactive
- 25 foot increased to 100 foot (if in compliance) walking pattern spacing
- Monthly cover integrity monitoring

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## Discussion Items

### Proposed Enhanced Monitoring Requirements

- New gas recovery systems – 200 ppmv surface methane limit
- Existing gas recovery systems – 500 ppmv surface methane limit
- Monthly landfill gas flow and methane concentration measurements for each wellhead
- Operate each wellhead under a vacuum (or negative pressure), except under certain conditions

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## Discussion Items

### Proposed Enhanced Monitoring Requirements (cont.)

- Recordkeeping to evaluate gas recovery trends
- Design Plan must contain procedures established by the landfill owner/operator to optimize collection efficiency of the gas recovery system based on the evaluation of collected monitoring data and ensure that the surface methane limit is maintained

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## Discussion Items

### *Proposed Enhanced Monitoring Requirements (cont.)*

- Quarterly surface emission measurements for active landfills
- Quarterly surface emission measurements reduced to annual (if in compliance) for inactive or closed landfills, or areas of active landfills that are closed or inactive
- 25 foot increased to 100 foot walking pattern spacing (if in compliance)
- Monthly Cover Integrity Monitoring

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## Next Steps

- Continue to work with stakeholders
- Late December 2008 – Staff Report available for a 45-day formal public review and comment period
- January 2009 – Air Resources Board hearing to consider control measure adoption
- Fall 2009 – Anticipated effective date of the control measure

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Landfill Methane Control Measure Website:  
<http://www.arb.ca.gov/cc/landfills/landfills.htm>



## Questions about the Draft Landfill Methane Control Measure?

